

REMARKS

The above amendments are made in response to the Office action of March 27, 2007. The Examiner's reconsideration is respectfully requested in view of the above amendments and the following remarks.

Claims 1-24 are pending in the present Application. Claims 6-12 and 18-24 have been previously withdrawn from consideration. Claims 1, 2 and 13 have been amended; leaving claims 1-5 and 13-17 for consideration upon entry of the present amendment and following remarks.

Support for the claim amendments is at least found in the specification, the figures, and the claims as originally filed.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Allowable Subject Matter

Claims 3-5 and 13-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 has been rewritten in independent form to include the limitations of claim 1, from which claim 13 depends. Applicants respectfully submit that claim 13 is now in condition for allowance.

Applicants gratefully acknowledge the Examiner's noting the allowable subject matter in claims 3-5 and 14-17, but Applicant respectfully submits that independent claims 1 and 13, from which claims 3-5 and 14-17 variously depend, are allowable. As such, Applicants have not rewritten claims 3-5 and 14-17 in independent form at this time. Reconsideration, entry of the claim amendments and allowance of claims 13-17 are respectfully requested.

Rejections Under 35 U.S.C. § 103

In order for an obviousness rejection to be proper, the Examiner must at least meet the burden of establishing that all of the elements of the invention are disclosed in the prior art and

that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). See MPEP 2143.

Claims 1 and 2

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Wei et al. (U.S. Patent Publication No. 2003/0137485 A1, hereinafter "Wei") in view of the Examiner's Official notice and further in view of Funamoto et al. (U.S. Patent Publication No. 2003/0142118 A1, hereinafter "Funamoto").

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Wei in view of Funamoto and further in view of Lee et al., U.S. Patent Publication No. 2002/0057247 A1 (hereinafter "Lee"). Applicants respectfully traverse.

Wei discloses in FIG. 3 a circuit diagram of a light source adjusting circuit. The light source adjusting circuit has a photo sensor (34) connected to an amplification circuit (44) that is further connected to a light source modulator (42) that is capable of spontaneously adjusting a backlight source (38) depending on an ambient illumination.

As acknowledged by the Examiner on page 4 of the present Office action, Wei does not disclose **a signal controller for providing the vertical synchronization signal and the vertical synchronization start signal; and an inverter controller generating a carrier signal for pulse width modulation and a lamp driving signal having on-time and off-time by pulse width modulating a dimming signal based on the carrier signal and controlling the on-time of the lamp driving signal in response to at least one of the vertical synchronization signal and the vertical synchronization start signal from the signal controller** of amended independent claim 1.

Funamoto discloses a liquid crystal display apparatus including a motion detection circuit (2) for detecting the amount of motion of a display image based on the video signal and a PWM (pulse width modulation) modulation pulse generation circuit (4) for generating modulation pulses different in frequency according to the detection result from the motion detection circuit (2). (Figs. 1-3.) In FIG. 3 Funamoto specifically discloses a PMW modulation pulse generating

circuit (4) that includes a 240Hz PWM pulse generator (16) for generating a 240 Hz PWM modulation pulse synchronizing with the vertical synchronizing signal; a 60 Hz PWM pulse generator (18) for generating a 60 Hz PWM modulation pulse synchronizing with the vertical synchronizing signal; and a selector (20) for switching between the output of (16) and (18) based on the result of the motion detection by the motion detection circuit (2) and outputting the selected pulse as the modulation pulse. Funamoto controls the on-time of the lamp based in response to a motion detection signal from the motion detection circuit (2). (See, paragraph 0148.) Funamoto specifically discloses that the PWM modulation pulse generation circuit 4 generates the modulation pulse *based on the motion detection result from the motion detection circuit 2*, such as if the display image is a moving image or if the display image is a still image. (See, paragraph 0149.) The modulation pulse generated by the generators (16) or (18) merely synchronize with the vertical synchronizing signal, but form no basis for selection of the modulation pulse generated by the selector (20).

As acknowledged by the Examiner on page 4 of the present Office action, Funamoto does not cure the deficiencies of Wei with respect to amended claim 1, namely, Funamoto does not teach, suggest or disclose a signal controller for providing the vertical synchronization signal and the vertical synchronization start signal; and an inverter controller generating a carrier signal for pulse width modulation and a lamp driving signal having on-time and off-time by pulse width modulating a dimming signal based on the carrier signal and controlling the on-time of the lamp driving signal in response to at least one of the vertical synchronization signal and the vertical synchronization start signal from the signal controller.

Lee is directed towards a liquid crystal display ("LCD") for rapidly increasing the initial bend state of a liquid crystal molecule, and a driver and a method for performing the same. (See Abstract). Lee discloses an LCD display including a timing controller 100, a gate driver 200, a source driver 300 and an inverter 700. The timing controller 100 of Lee receives both a horizontal synchronization signal Hsync and a vertical synchronization signal Vsync. The timing controller 100 then outputs a horizontal start signal Hstart to the source driver 300 and a vertical start signal Vstart to the gate driver 200.

Applicants respectfully submit that Lee does not cure the defects of Wei and Funamoto as described above, namely, there is no teaching, disclosure or suggestion in Lee of a signal controller for providing the vertical synchronization signal and the vertical

synchronization start signal; and an inverter controller generating a carrier signal for pulse width modulation and a lamp driving signal having on-time and off-time by pulse width modulating a dimming signal based on the carrier signal and controlling the on-time of the lamp driving signal in response to at least one of the vertical synchronization signal and the vertical synchronization start signal from the signal controller of amended independent claim 1.

Neither the vertical synchronization signal V_{sync} or the vertical start signal V_{start} of Lee are applied to an inverter controller for controlling the inverter 700. There is no teaching, suggestion or disclosure that the inverter 700 of Lee is controlled in response to the vertical synchronization signal V_{sync} or the vertical synchronization start signal V_{start} . The inverter 700 is instead controlled by a B/L control signal. The B/L control signal has a simple square wave pattern and turns the inverter 700 on and off at predetermined intervals of about a second. There is no teaching, suggestion, or disclosure that the B/L control signal is controlled by either V_{start} or V_{sync} . Furthermore, the vertical synchronization start signal V_{start} is sent to the gate driver 200 which does not interact with the inverter 700.

Accordingly, for at least these reasons, amended independent claim 1, and claims depending therefrom, i.e., claim 2, are in condition for allowance.

Conclusion

All of the objections and rejections are herein overcome. In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. No new matter is added by way of the present Amendments and Remarks, as support is found throughout the original filed specification, claims and drawings. Prompt issuance of Notice of Allowance is respectfully requested.

The Examiner is invited to contact Applicants' attorney at the below listed phone number regarding this response or otherwise concerning the present application.

Applicants hereby petition for any necessary extension of time required under 37 C.F.R. 1.136(a) or 1.136(b) which may be required for entry and consideration of the present Reply.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,

By: /James J. Merrick/
James J. Merrick
Registration No. 43,801
John W. Stankiewicz
Registration No. 60,169
Cantor Colburn LLP
55 Griffin Road South
Bloomfield, CT 06002
PTO Customer No. 23413
Telephone: (860) 286-2929
Fax: (860) 286-0115

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